Spa Operator's Guide

Includes
Installation, Operation, Maintenance and Safety Information

⚠ NOTE

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS

This manual contains important safety, operating, and installation instructions - read before installation or operating spa.

OWNER'S INFORMATION

DEALER IMPRINT AREA

Installer

Company: _____

Address: _____

Phone: _____

Warranty Submitted: _____

PLEASE ASK YOUR DEALER ABOUT REGISTERING YOUR WARRANTY

Model: _____

Serial Number: _____

Equipment Pack: _____

Color: _____

Date of Delivery: _____

We appreciate your business and our sincere desire is that you receive years of pleasure and therapy from your spa. Please call your local spa dealer if you have any question or problems.

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This Operator's Guide utilizes the following symbols to emphasize particular information.

The Safety Alert Symbol indicates a potential hazard

Dear Spa Owner:

Congratulations on your purchase of a new spa. You now possess the ultimate passport to tranquility - a daily vacation at home, ready and waiting for you in your own backyard!

We want you to enjoy your spa. Many hours of research have gone into the design of your spa, to ensure the ultimate in hydrotherapy and relaxation. Only the highest quality components have been used, to ensure years of trouble-free operation. Your comfort and enjoyment have been designed into your spa from the start.

Please take the time to read through this Operator's Guide. In it, you will find guidelines on caring for your spa, a complete explanation of the controls, safety instructions, a trouble-shooting section, and lots more.

Once again, we welcome you to the family of spa owners. Your thoughts and ideas are important and we encourage you to share them with us. Please write to us at the address below, or send us an e-mail with your comments.

Thank you for your business and your confidence in our company. We look forward to serving you!

WARNING/CAUTION TAGS DIAGRAM

⚠ WARNING

DURING PREGNANCY, SOAKING IN HOT WATER MAY CAUSE DAMAGE TO THE FETUS. LIMIT USE TO 10 MINUTES AT A TIME.

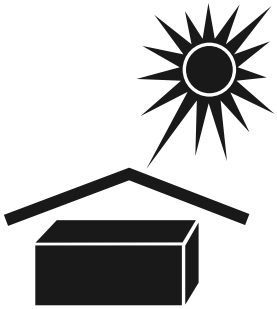
PREVENT DROWNING

SPA HEAT SPEEDS UP EFFECTS OF ALCOHOL, DRUGS, OR MEDICINE, AND CAN CAUSE UNCONSCIOUSNESS. IMMEDIATELY LEAVE SPA IF UNCOMFORTABLE OR SLEEPY.

PREVENT CHILD DROWNING

WATER ATTRACTS CHILDREN. ALWAYS ATTACH A SPA COVER AFTER EACH USE.

⚠ ATTENTION



KEEP FROM HEAT

FAILURE TO DO SO WILL RESULT IN VOID OF WARRANTY.

SPA SAFETY SIGN

Included with your new spa is a Safety Sign. This sign is for you and your guest's protection and is suitable for outdoor use in wet locations. The sign should be placed in a location visible to all users of the spa.

Please take time to point out the physical location of the safety sign and the importance of the safety precautions displayed on the safety sign to all of your guests.

Remember, your safety and the safety of everyone who enjoys the use of your spa is our utmost concern.

The sign should be mounted with screws or another type of permanent fastener.

Additional or replacement signs can be obtained from your dealer or direct from the factory.

A Safe Spa Is A Happy Spa!

SAFETY FIRST!

Rev. 031207

⚠ ATTENTION

If your spa contains clear backlit jets, please avoid using any spa chemicals that contain Hydrogen Peroxide. Hydrogen Peroxide based spa chemicals have been found to react adversely with the materials used to produce these components. We recommend the use of Chlorine and Bromine based products only. Any structural and/or cosmetic jet failure linked to the use of Hydrogen Peroxide based products will not be covered under your warranty.

Please consult your Dealer for approved chemical options.

⚠ ATTENTION

INSTALL FILTERS BEFORE FILLING SPA!

1. Remove filters from plastic bag.
2. Carefully thread filters into fittings
3. DO NOT overtighten. A snug fit is all that is required.

WARNING/CAUTION TAGS DIAGRAM

⚠WARNING

REDUCE THE RISK OF ELECTROCUTION
1. Never place an electric appliance within 5 feet of spa.

REDUCE THE RISK OF CHILD DROWNING
1. Supervise children at all times.
2. Attach spa cover after each use.

REDUCE THE RISK OF OVERHEATING
1. Check with a doctor before use if pregnant, diabetic, in poor health, or under medical care.
2. Exit immediately if uncomfortable, dizzy, or sleepy, Spa heat can cause hyperthermia and unconsciousness.
3. Spa heat in conjunction with alcohol, drugs or medication can cause unconsciousness.

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WHEN PREGNANT Soaking in hot water for long periods can harm your fetus. Measure water temperature before entering.
1. Do not enter spa if water is hotter than 100˚ F (38˚ C).
2. Do not stay in spa for longer than 10 minutes.

This marking is to be removed only by the owner after Safety Sign is installed.

NO DIVING
SHALLOW WATER • NO JUMPING
DIVING OR JUMPING MAY CAUSE DEATH, PARALYSIS
OR PERMANENT INJURY
NO CLIMBING OR WALKING ON TOP RAIL

⚠CAUTION

RISK OF ELECTRICAL SHOCK
Replace components
only with indentical components

⚠WARNING

PREVENT ELECTROCUTION
Do not connect any auxiliary components (for example, cable, additional speakers, headphones, additional audio/video components, etc.) to the system.

⚠CAUTION

RISK OF ELECTRICAL SHOCK
Do not leave the compartment door open

001202.060909

SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Included with your new spa is a safety sign. The sign is for you and your guest's protection and is suitable for outdoor use in wet locations. The sign should be placed in a location visible to all users of the spa.

Please take time to point put the physical location of the safety sign and the importance of the safety precautions displayed on the safety sign to all of your guests. Remember, your safety and the safety of anyone who enjoys the use of your spa is our utmost concern.

The sign should be mounted with screws of another type of permanent fastener. Additional or replacement signs can be obtained from your dealer or direct from our factory.

IMPORTANT SAFETY INSTRUCTIONS

⚠WARNING!

When installing and using this electrical equipment, basic safety precautions should be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

1) **WARNING -** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

2) **DANGER - RISK OF CHILD DROWNING.** Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use the spa unless they are supervised at all times.

NOTE: A wire connector is provided on this unit to connect of a minimum No. 4 AWG minimum 75˚C copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduct within 5 feet (1.52 m) of the unit.

3) **DANGER - RISK OF ELECTRIC SHOCK.** Install spa at least five (5) feet (1.52 m) from all metal surfaces. A spa may be installed within five (5) feet (1.52 m) of metal surfaces if, in accordance with the National Electrical Code, each metal surface is permanently connected by a minimum No. 4 AWG (6. mm) minimum 75˚C copper conductor attached to the wire connector on the terminal box. A grounding lug is provided for this purpose.

4) **DANGER - RISK OF INJURY.** The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible.

NOTE: Never operate the spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

5) **DANGER -** To reduce the risk of injury to persons, do not remove the suction grate. Suction through drains and skimmers is powerful when the jets in the spa are in use. Damaged covers can be hazardous to small children and adults with longhair. Should any part of the body be drawn into these fittings, turn off the spa immediately. As a precaution, long hair should not be allowed to float in the spa.

6) **WARNING.** Install the spa so that water can be easily drained out if the comparment containing electrical components so as not to damage equipment. Also, when installing spa, allow at least 2 feet of clearance around the perimeter of the spa to provide enough room to access for servicing. Contact your local dealer for their specific requirements.

7) **WARNING - TO REDUCE THE RISK OF INJURY:**

- REMINDER - Never allow anyone to dive into a spa. Always enter feet first.
- Always enter and exit a spa slowly.
- Do not use the spa alone.
- Before entering the spa, always measure the water temperature with an accurate thermometer. Tolerance of water temperature regulating devices can vary as much as plus/minus 5˚ F (3˚ C).
- Persons suffering from obesity or with a medical history of heart disease, diabetes, high or low blood pressure or circulatory system problems should consult a physician before using a spa.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

WARNING - TO REDUCE THE RISK OF INJURY: (CONT.)

- Since excessive water temperatures have a high potential for causing fetal damage during early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100˚ F (38˚ C).
- Excessive water temperature can be dangerous. The water in the spa should never exceed 104˚ F (40˚ C). Water temperatures between 100˚ F (38˚ C) and 104˚ F (40˚ C) are considered safe for a healthy adult. Lower water temperatures are recommended for extended use (exceeding 10 minutes) and for young children. Long exposures at higher temperatures can result in hyperthermia.
- The use of alcohol, drugs or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
- Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure and circulation.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

WARNING - TO REDUCE THE RISK OF INJURY: (CONT.)

⚠ WARNING!

HYPERTHERMIA

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6˚ F.

THE SYMPTONS OF HYPERTHERMIA INCLUDE:

- Dizziness
- Fainting
- Drowsiness
- Lethargy
- Increase in Internal Body Temperature

THE EFFECTS OF HYPERTHERMIA INCLUDE:

- Unawareness of impending hazard
- Failure to perceive heat
- Failure to recognize the need to exit spa
- Physical inability to exit spa
- Fetal damage in pregnant women
- Unconsciousness resulting in potential of drowning

- Children's body temperature can increase more rapidly than adults in the same water with elevated temperatures (above 99˚ F). Children should spend less time in water above body temperature than adults.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

8) **WARNING -** The use of alcohol, drugs or medication can greatly increase the risk of hyperthermia in hot tubs and spas.

- The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.

- Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

9) **REMINDER -** A safe temperature for swimming or aquatic exercise is around 80˚ F.

NOTE - People with infections or sores should not use the spa. Warm and hot water temperatures may allow the growth of infectiouness bacteria if not properly disinfected.

10) **DANGER - RISK OF ELECTRIC SHOCK.** Do not permit any electric appliance, such as a light, telephone, radio or television within five (5) feet of the spa. Never operate any electrical appliances from inside the spa or while wet.

11) **WARNING - RISK OF SUFFOCATION.** If this spa is equipped with a heater, it is intended for outdoor use only, unless proper ventilation can be provided for an indoor installation.

12) **CAUTION - RISK OF ELECTRIC SHOCK.** Do not leave the CD compartment open.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

13) **CAUTION - RISK OF ELECTRIC SHOCK.** Replace components only with identical components.

NOTE - The CD player controls are not to be operated while inside the spa.

14) **WARNING - PREVENT ELECTROCUTION.** Do not connect any auxiliary components (for example, additional speaker, headphones, additional audio/video components etc.) to the system. These units are not provided with an outdoor antenna.

Do not service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to your qualified spa tech.

If the power supply/supply cord(s) are damaged, water is entering the speaker, CD compartment, or any other component in the electrical equipment compartment area, the protective shield is showing signs of deterioration, or there are signs if other potentially hazardous damage to the unit, turn off the circuit breaker from the wall and refer your service technician.

The unit should be subject to periodic routine maintenance once every quarter to make sure that the unit is operating properly.

15) **DANGER - RISK OF ELECTRIC SHOCK.** Do not permit any electric appliance, such as a light, telephone, radio or television within five (5) feet of the spa.

16) A green colored terminal or a terminal marked G, GR. Ground, Grounding or the symbol shown in Figure 14.1 of UL1563 is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

DANGER - RISK OF ELECTRIC SHOCK. CONT.

17) Do at least two lugs marked “Bonding Lugs” are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the spa to these terminal with an insulated or bare copper conductor not smaller than No. 4 AWG.

18) All field-installed metal components such as rails, ladders, drains or other similar hardware with 3m of the spa shall be bonded to the equipment grounding bus with copper conductors not smaller then No. 4 AWG.

CAUTION - test the ground fault circuit interrupter before each use Of the spa

ATTENTION: toujours vérifier l’efficacité du disjoncteur differentiel Avant d’utiliser le bain,

CAUTION - read the instruction manual

ATTENTION: lire la notice technique

CAUTION - adequate drainage must be provided if the equipment is to be Installed in a pit, or equivalent,

ATTENTION: lorsque l’appareillage est Installe dans une fosse, on doit assurer un drainage adéquat

WARNING - water temperature in excess of 38°c may be injurious to your health

AVERTISSEMENT - des températures de l’eau supérieures à 38°c Peuvent présenter un danger pour la santé or equivalent;

WARNING - disconnect the electric power before servicing

AVERTISSEMENT - déconnecter du circuit d i alimentation électrique Avant l’entretien

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING: Children should not use spas or hot tubs without adult supervision.

AVERTISSEMENT: Ne pas laisser les enfants utiliser une Cuve de relaxation sans surveillance.

WARNING: Do not use spas or hot tubs unless all suction guards Are installed to prevent body and hair entrapment.

AVERTISSEMENT: Pour éviter que les cheveux ou une partie du corps puissent être aspirés, ne pas utiliser une cuve de relaxation si Les grilles de prise d'aspiration ne sont pas toutes en place.

WARNING: People using medications and/or having an adverse medical history should consult a physician before using a spa or hot tub.

AVERTISSEMENT: Les personnes qui prennent des médicaments ou ont des problemes de santé devraient consulter un médecin avant d'utiliser une cuve de relaxation.

WARNING: People with infectious diseases should not use a spa or hot tub.

AVERTISSEMENT: Les personnes atteintes de maladies infectieuses Ne devraient pas utiliser une cuve de relaxation.

WARNING: To avoid injury exercise care when entering or exiting the spa or hot tub.

AVERTISSEMENT: Pour éviter des blessures, user de prudence en Entrant dans une cuve de relaxation et e-.: Sortant.

WARNING: Do not use drugs or alcohol before or during the use of A spa or hot tub to avoid unconsciousness and possible drowning.

AVERTISSEMENT: Pour éviter l i évanouissement et la noyade eventuelle, ne prendre ni drogue ni alcool avant d'utiliser une cuve de relaxation ni quand on s'y trouve.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING: Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub

AVERTISSEMENT: Les femmes enceintes, que leur grossesse soit confirmée ou non, devraient consulter un medecin avant di utiliser une cuve de relaxation

WARNING: Water temperature in excess of 38°C may be injurious to your health

AVERTISSEMENT: Il peut être dangereux pour la santé de se plonger dans de l'eau à plus de 38°c

WARNING: Before entering the spa or hot tub measure the water temperature with an accurate thermometer

AVERTISSEMENT: Avant d'utiliser une cuve fe relaxation mesurer température de l'eau à l'aide d'un thermometre précis

WARNING: Do not use a spa or hot tub immediately following strenuous exercise

AVERTISSEMENT: Ne pas utiliser une cuve de relaxation Immédiatement après un exercice fatigant

WARNING: Prolonged immersion in a spa or hot tub may be injury to your health

AVERTISSEMENT: l'utilisation prolongée d'une cuve de relaxation peut être dangereuse pour la santé la

WARNING: Do not permit electric appliances (such as a light, Telephone, radio, or television) within 1.5 M of this spa or hot tub

AVERTISSEMENT: Ne pas placer d'appareil électrique (luminaire, téléphone, radio, téléviseur, etc) à moins de 1.5 M de cette cuve de relaxation

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

CAUTION: Maintain water chemistry in accordance with manufacturer's instruction

ATTENTION: La teneur de l'eau en matières dissoutes doit être Conforme aux directives du fabricant.

READ AND FOLLOW ALL INSTRUCTIONS

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 37°C. The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include

(a) unawareness of impending hazard
(b) failure to perceive heat
(c) failure to recognize the need to exit spa
(d) physical inability to exit spa
(e) fetal damage in pregnant women
(f) unconsciousness and danger of drowning

WARNING: THE USE OF ALCOHOL OR DRUGS CAN GREATLY INCREASE THE RISK OF FATAL HYPERTHERMIA IN HOT TUBS AND SPAS

AVERTISSEMENT - LA CONSOMMATION D I ALCOOL OU DE DROGUE AUGMENTE CONSIDERABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.

SAVE THESE INSTRUCTIONS

BASIC INFORMATION

Congratulations on the purchase of your new spa. Our goal is to provide you with a warm and relaxing spa which incorporates a soothing water massage. In order to maximize the pleasure of your spa, you will need to understand how it works.

The following operating and maintenance instructions are very important and must be followed carefully. With proper care and maintenance your spa will provide you with years of satisfaction with minimum effort.

- The pump and heater should be operated a minimum of two hours per day for cleaning and heating.
- The length of time required to heat your spa to the desired water tem perature will vary, depending on the air temperature, season, and wind velocity. We highly recommend using a vinyl hard cover to minimize heat loss and to protect your spa when not in use. Covers are available from your local spa dealer.
- The replaceable filter cartridge is trouble free and easy to clean. A routine cleaning is the best practice. Make sure the pump is off, then remove the cartridge. Wash it off using a water hose with a pressure nozzle and then reassemble. This should be done on a monthly basis.
- Keep the spa water level 2” above the skimmer. Never allow the water level to drop below the bottom of the skimmer opening. If the water level is too low, the skimmer will allow air into the water lines of the pump, causing it to lose its prime (waterflow). Running the pump without water flow will damage the pump seal assembly and could possibly result in further equipment damage, which will not be cov ered under warranty.
- If your spa has a natural wood skirt or if you purchased a gazebo, we recommend applying a wood sealer of your choice (always follow ap plication instructions) to protect the finish. Repeat as directions sug gest.
- You should clean your spa at least every 3-4 months. Drain the spa water and use a gentle liquid cleanser. DO NOT use hard brushes or abrasive cleaners. Fill with regular tap water and chemically treat the water for a clean and healthy spa.

⚠CAUTION!

CAUTION: Cover must be kept on spa at all times when spa is drained or winterized. Direct exposure to sunlight can damage plastic parts and interior surface, jets, or any interior components. Damage caused by exposure to the sun will not be covered under warranty.

⚠WARNING!

Do not use soft water. It may harm your acrylic.

ELECTRICAL INSTALLATION REQUIREMENT'S

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incurring power which are too small, may continually blow fuses in the electrical equipment box, may damage the internal electrical controls and components, may be unsafe an in any case will void the warranty.

It is the responibility of the spa owner to ensure that electrical connections are made by a qualified electrician in accordance with the National Electrical code and any local and state electrical codes in force at the time of installation.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz, alternating current only, 240 volts are required. Make sure that power is not applied while performing electrical installation. A copper bonding has been provided on the electrical equipment pack to allow connection to local ground points. The ground wire must be at least 6 AWG copper wire and must be connected securely to a grounded metal surface such as a cold water pipe. The electrical supply for your spa must include a 50 AMP switch or circuit breaker to open all non-grounded supply conductors to comply with section 422-20 of the National Electrical Code. This disconnect must be readily accessible to the spas occupants, but installed at least five feet from the spa. A ground fault Circuit Interrupter (GFCI) must be used to comply with section 680-42 of the National Electrical Code. A ground fully is a current leak from any of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a current fault is detected.

Power hook-up to the spa must be a 240 volt 3 wire plus ground (6 AWG copper).

Route the cable into the equipment area for final hookup to terminals inside the control panel. The spa must be hooked up to a "dedicated" 240 volt, 50 amp breaker and GFCI. The term "dedicated" means the electrical circuit for the spa is not being used for any other electrical items (patio lights, appliances, garage circuits, etc.) If the spa is connected to a non-dedicated circuit, overloading will result in "nuisance tripping" which require resetting of the breaker switch at the house electrical panel.

(Excludes any 110/120 volt models.)

SPA (XM) WIRING DIAGRAM

THE DIAGRAM IS INTENDED FOR THE XM PACK SYSTEM

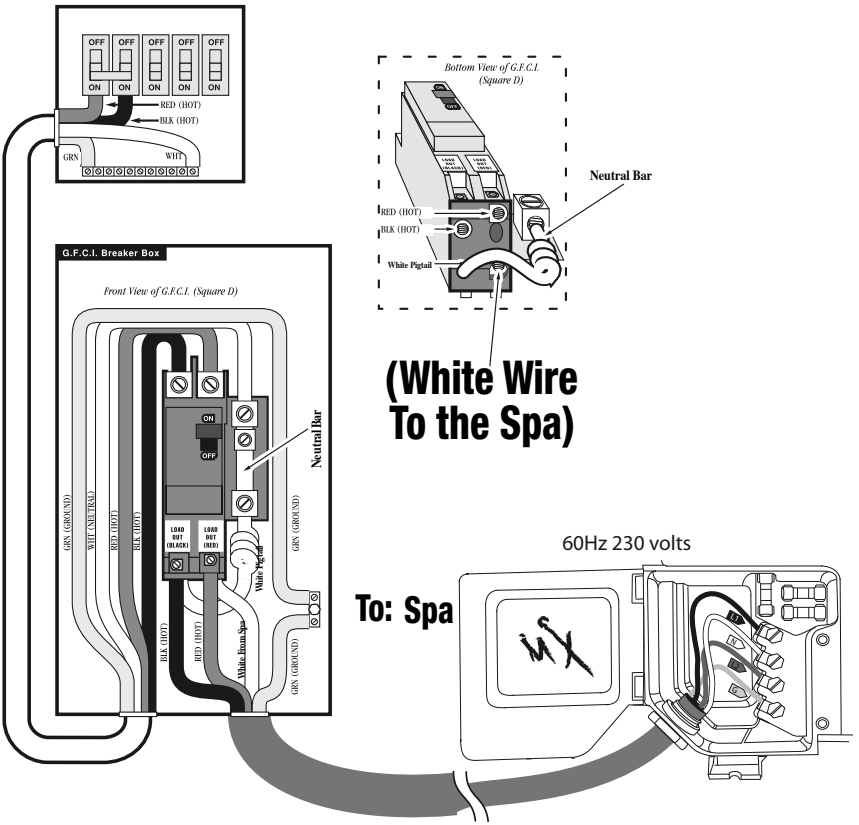
Wiring Requirements

- 2-Hots, 1-Neutral, 1-Isolated Ground
- 0-40' length, 4 Wire #6 AWG minimum 75˚C copper conductor
- Over 40' length, 4 Wire #6 AWG minimum 75˚C copper conductor

(Check your local Electrical codes for 60 Amp GFCI circuits for correct wire size for some areas vary)

Factory Recommended G.F.C.I. Load Center Wiring

Note: The white neutral wire from the back of the GFCI MUST be connected to an incoming line neutral. The internal mechanism of the GFCI requires this neutral connection. The GFCI will not work without it.

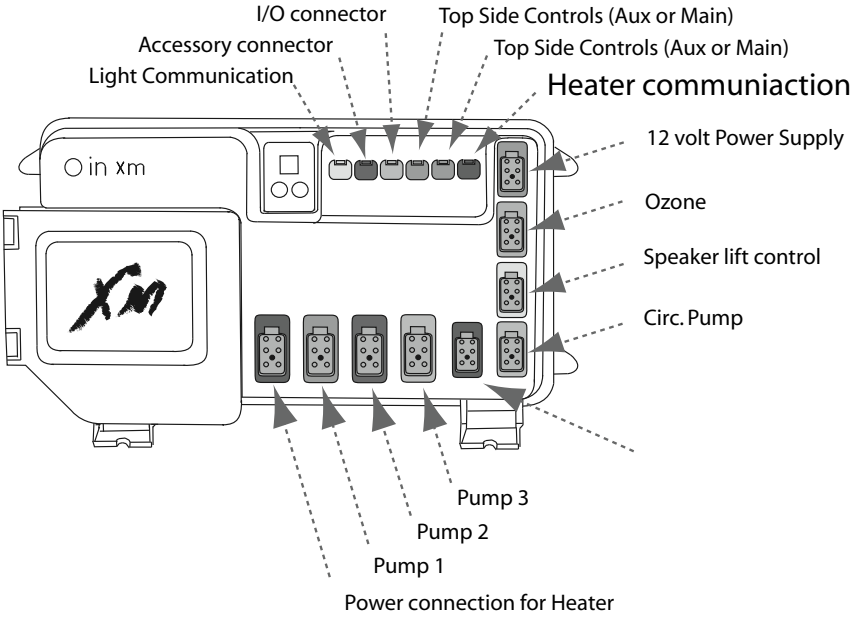


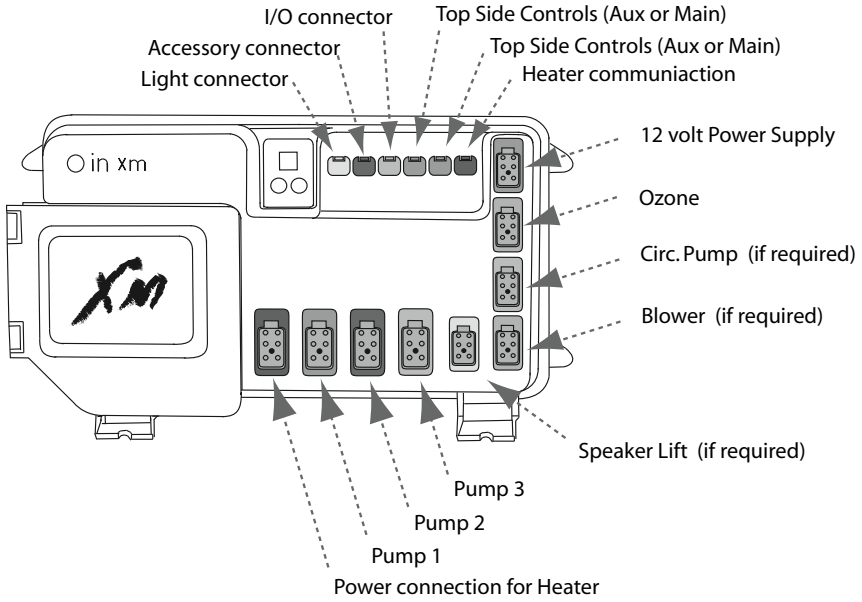
⚠ NOTE!

Note: Connection order may vary by pack model, please refer to equipment pack panel for proper connection order.

SPA (XM) WIRING DIAGRAM

CINEMA SERIES SPAS





SPA (XE) WIRING DIAGRAM

THE DIAGRAM IS INTENDED FOR THE XE PACK SYSTEM

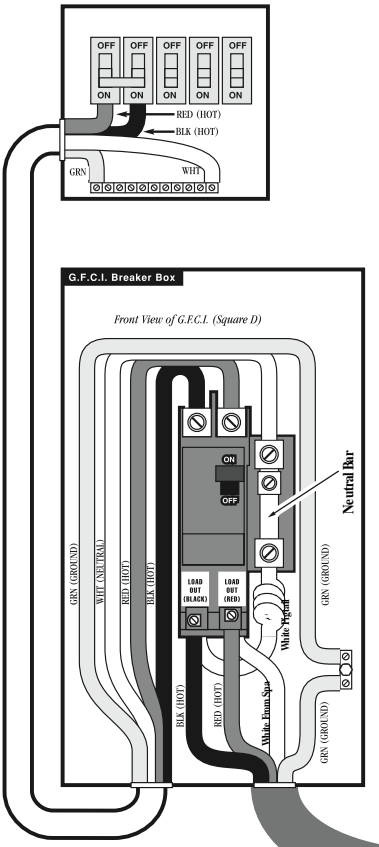
Wiring Requirements

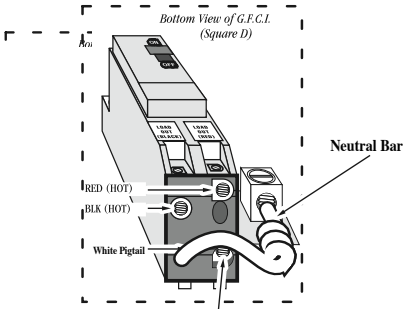
- 2-Hots, 1-Neutral, 1-Isolated Ground
- 0-40' length, 4 Wire #6 AWG minimum 75˚C copper conductor
- Over 40' length, 4 Wire #6 AWG minimum 75˚C copper conductor

(Check your local Electrical codes for 60 Amp GFCI circuits for correct wire size for some areas vary)

Factory Recommended G.F.C.I. Load Center Wiring

Note: The white neutral wire from the back of the GFCI MUST be connected to an incoming line neutral. The internal mechanism of the GFCI requires this neutral connection. The GFCI will not work without it.





(White Wire To the Spa)

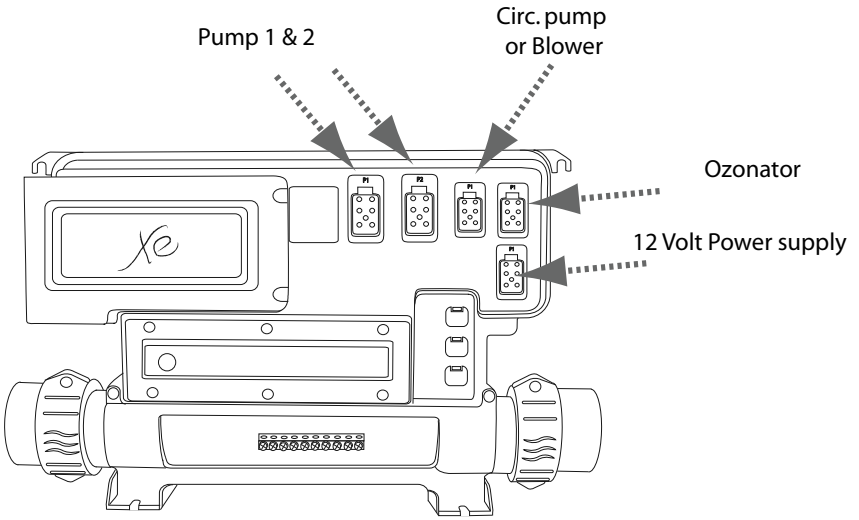
To: Spa

For Spa Wiring Configuration please refer to page 28 or equipment pack for detailed information

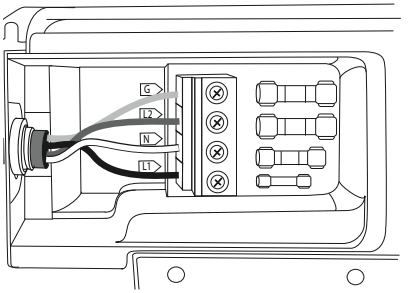
⚠ NOTE!

Note: Connection order may vary by pack model, please refer to equipment pack panel for proper connection order.

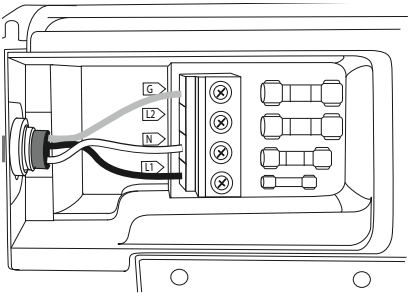
SPA (XE) WIRING DIAGRAM



230 VOLT 60HZ/most common



120 Volt 60 Hz / Select models w/120volt pump and heater set to 120 volts



SET-UP & DELIVERY GUIDELINES

GETTING READY FOR DELIVERY & SET-UP OF YOUR NEW SPA

SURFACE AND PAD REQUIREMENTS

Your new portable spa must be placed on a uniformly firm, flat, and level surface. A concrete pad 3 inches thick is best. If your spa is located near sprinklers, adjust or cap them so they do not hit the siding of the spa.

BALCONIES AND DECK REQUIREMENTS

- Decking must be constructed to support 85 pounds per square foot.
- Balconies must be constructed to meet current state and local codes.
- Gates must be self-closing and self-latching.

ACCESS & CLEARANCE

- Your spa requires 42" of clearance through gates between house and side fences, and up to 8.5' overhead clearance depending on the size of the unit.
- The clearance required to turn a corner can be equal to the length of the spa.
- All debris blocking access to the job site must be removed prior to delivery. Any trimming of trees or bushes, removal of debris, leveling of ground or other general maintenance must be done prior to delivery and is the responsibility of the customer.

GENERAL CONSIDERATIONS FOR OUTDOOR INSTALLATION

Again, proper planning will increase your total enjoyment factor with your new spa. Listed below are some additional items to consider when planning your installation.

- How spa will complement landscaping and vice versa.
- View from inside of spa and view of spa from inside the home.
- Exposure to sunlight and shading from trees.
- Privacy
- Getting to spa from house and return.
- Proximity to dressing room and bathrooms
- Storage for spa chemicals
- Local building codes (if applicable)
- Power cable

⚠ CAUTION!

Decking must be constructed to support 85 pounds per sq. ft.

SET-UP & DELIVERY GUIDELINES

GETTING READY FOR DELIVERY & SET-UP OF YOUR NEW SPA

GENERAL CONSIDERATIONS FOR INDOOR INSTALLATION

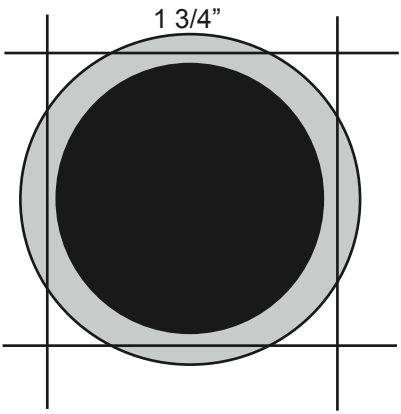
Installing your spa indoors creates an extremely different set of considerations, Here again, with proper planning, no matter what room your spa goes in, it will be your favorite room.

- Work with your Spa Dealer and contractor to insure all local building, electrical and plumbing codes are met.
- Plan for a floor drain to drain off excess water or for draining and cleaning your spa.
- A ventilation fan may be necessary due to high humidity created by your spa.
- Finished material in your spa room should also be capable of with standing increased humidity.

CORD CHASE SAFE INSTALLATION

The attached cord chase has been supplied for the safe installation of electrical wire.

A 1 3/4” hole should be drilled in the skirting once the entry location has been determined.



SET-UP & DELIVERY GUIDELINES

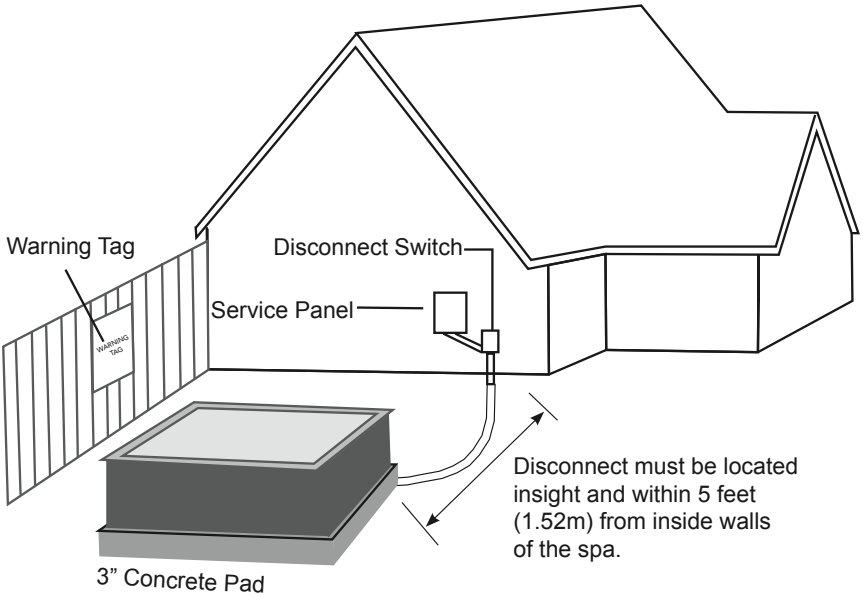
Electrical Requirements

- Your 220 Volt spa pack will require a double pole 50 amp dedicated GFCI, ground fault circuit breaker.
  Caution: Connect only to a circuit protected by a Class a ground fault circuit interrupter
  Attention : connecter uniquement à un circuit Protégé par un disjoncteur differentiel de classe a

- Extension cords are not to be used in conjunction with operation of the spa. Low voltage damage could result, which is not covered by warranty.

- If you have any doubts, have your electrical system checked by a licensed electrician.

- Use copper conductors only.
  Employer uniquement des conducteurs de cuivre


Warning Tag
WARNING TAG
Disconnect Switch
Service Panel
Disconnect must be located insight and within 5 feet (1.52m) from inside walls of the spa.
3" Concrete Pad

⚠ NOTE!

It is the customer's responsibility to acquire necessary permits and to arrange for installation and hook up of the electrical power by a licensed electrician.

GENERAL PRE-OPERATION INSTRUCTIONS

Priming Pump For Electric Packs

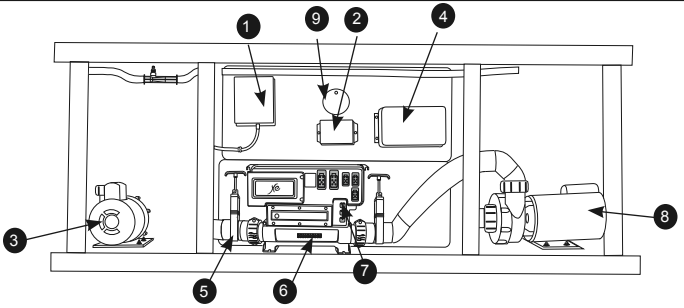
The Power pack system is located under the skirting. The equipment can be serviced by simply removing the door. The door is located on the side of the spa where three panels are located, usually on the side of the spa with the lounger, or the side where the topside control panel is located.

It is important to make sure that all of the air is out of the pump(s) before operating. To do this follow procedures below:

- Turn off power at the breaker
- Make sure the gate valves are open
- Fill the spa with water going thru the filter
- Turn the power on at the breaker
- Start the pump on low speed and water should start circulating within one to two minutes. If water does not start circulating, turn pump from low to high until prime is picked up.
- If pump still does not prime, please see “Trouble Shooting Guide” located in the back of this manual

⚠ NOTE!

Note: Equipment style and location will vary by model



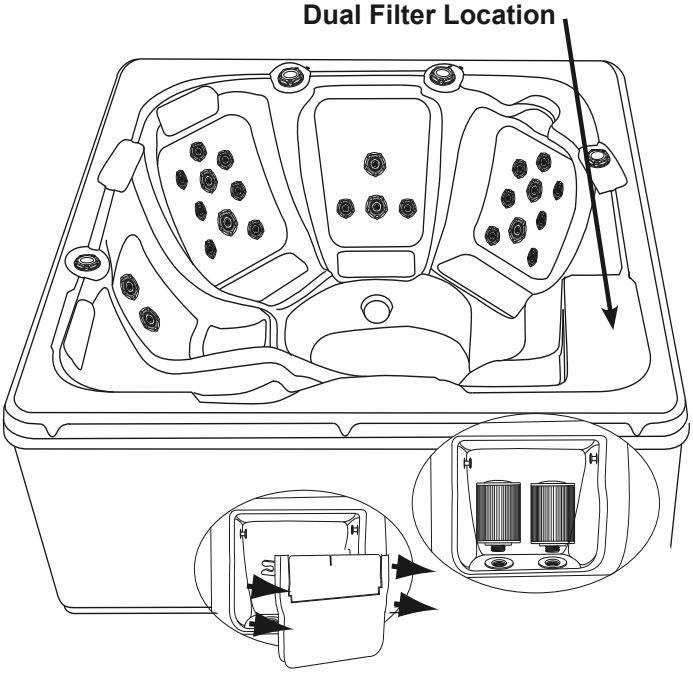
1. Ozonator
2. LED Controller
3. 2nd High Performance Pump
4. Power Supply
5. Gate Valve
6. Flow Thru Heater
7. Equipment Pack
8. Dual Speed High Performance Pump
9. Light Access / Service Contact Info

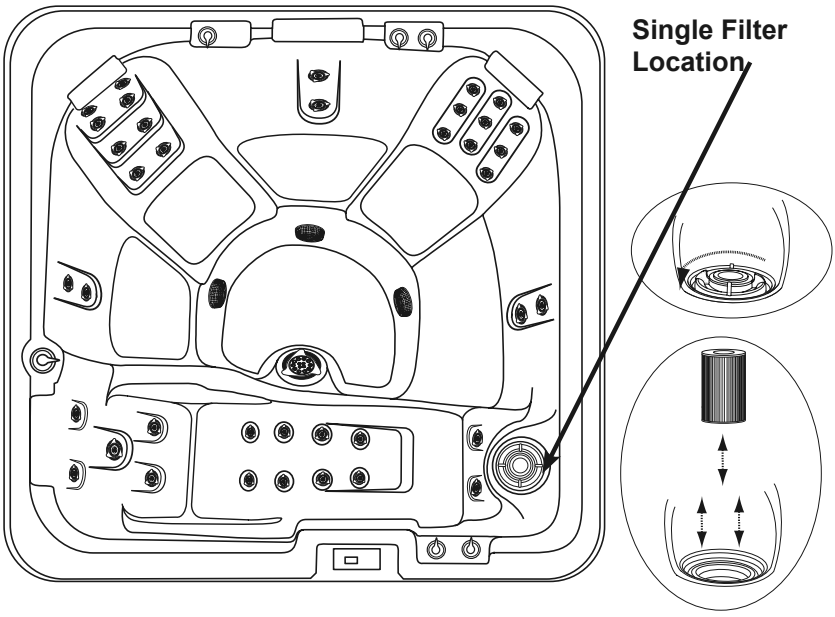
Set thermostat, located on top side control panel, to desired temperature and continue heating until desired temperature has been reached. Depending on equipment, this will normally take 8 to 10 hours.

⚠WARNING!

WARNING: Do not run spa with gate valves closed or run pump with no water circulating in spa for long periods. This could damage the spa equipment.

FILTER LOCATION



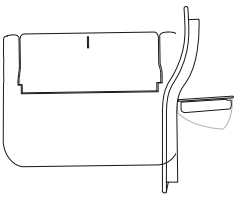


FILTER MAINTENANCE

Filtration starts as soon as water flow is steady through the filter. The filter cartridge removes body oil and debris from the spa water, as they can cause flow resistance. A dirty cartridge will decrease flow and may prevent the spa from heating properly. Therefore, regular filter cleaning is essential.

Cleaning and Replacing Filter Cartridge
Your spa filter(s) have been designed for quick and easy maintenance.

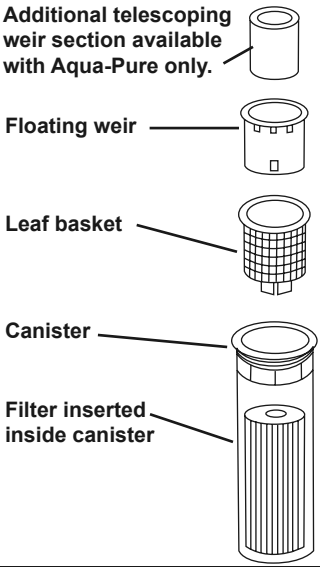
Enclosed Style



- Turn off power at the breaker.
- Open filter door and expose filter cartridge(s) by pulling door toward center of spa until door opens completely.
- Unscrew filter cartridge(s) and remove.
- Clean with a garden hose equipped with a high pressure nozzle, or soak in filter cartridge cleaner if necessary, or at every other regularly scheduled cleaning. Rinse filter thoroughly before installing.
- Screw clean cartridge back into filter enclosure and return filter door to original position.

Open Style

- Turn off power at the breaker.
- Remove basket from filter canister, remove filter cartridge and clean with a garden hose equipped with a high pressure nozzle, or soak in filter cartridge cleaner if necessary or at every other regularly scheduled cleaning. Rinse filter thoroughly before installing.
- Place clean cartridge in filter canister
- Replace basket weir in filter canister.

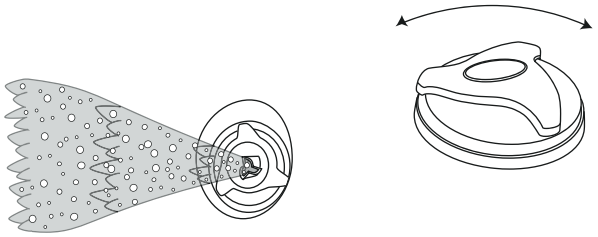


⚠ NOTE!

Note: The filter should be inspected and cleaned on a monthly basis.

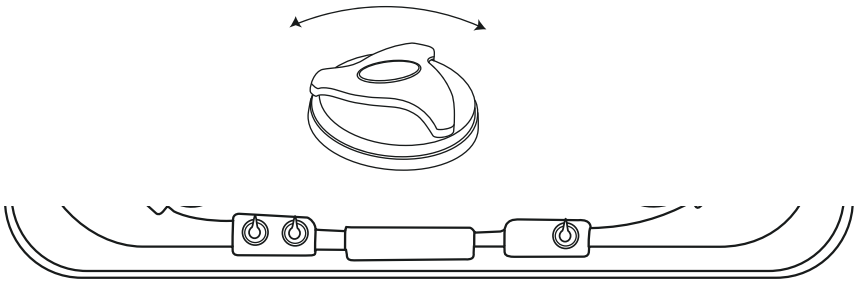
SPA TERMINOLOGY

JETS:
Your new spa features a variety of jet styles. All jets regardless of style return the water to the spa. Air is mixed with the water by using the air controls (if equipped) creating a gentle to most vigorous massage.



WATER DIVERTER VALVE
The Water Diverter Valve controls the output of the pump(s) water flow to either side of the spa, or it will provide even water flow to all jets if left in the half way position. The purpose of this valve is to increase or decrease the output of one side or another for maximum or minimum water flow in case of one or two person usage. This valve is also used to turn the master massage jet on and off, if so equipped. Colors/style may vary from drawing. A Water Diverter Valve is the largest of the valve controls.

Although all three controls look similar in appearance, they are easily discernible by size. The Air Control is the smallest, the Mini Diverter Valve is medium in size, and the Water Diverter Valve is the largest .

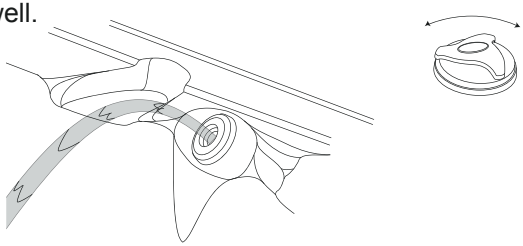


A Mini Diverter Valve, an Air Control, and a Water Diverter Valve.
Locations will vary on each spa model.

SPA TERMINOLOGY

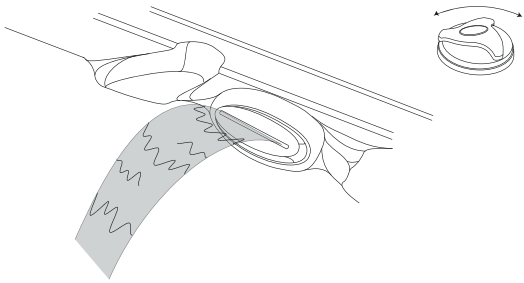
FOUNTAIN CONTROL

If your spa is equipped with optional fountain jets, they are controlled with a Fountain Jet Control. Turning the Fountain Jet Control full counterclockwise will turn the Fountain Jet on full power, while turning full clockwise will turn the Fountain Jet off. The Fountain Jet Control is marked “On” and “Off” as well.



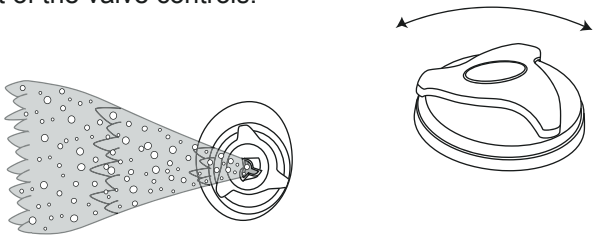
WATERFALL CONTROL

If your spa is equipped with waterfalls, they are controlled with a Mini Diverter Valve. Turning the Mini Diverter Valve full clockwise will turn the waterfall on full power, while turning full counterclockwise will turn the waterfall off.



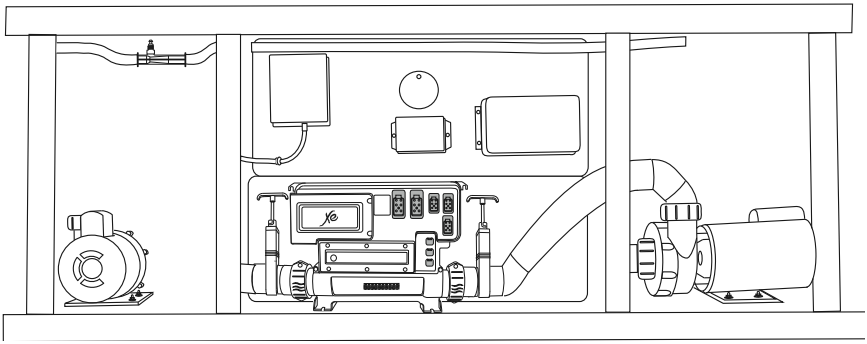
AIR CONTROL

Each spa is equipped with air controls (venturies). The purpose of these controls is to regulate the mixture of air and water that flows through the jets. If an optional blower is installed, air is also pushed through the air controls (venturies) for maximum output. If your spa has a master massage jet located in the foot well, the spa will be equipped with an air control specifically for the master massage jet. This third control operates the same as the others. Colors/style may vary from drawing. An Air Control is the smallest of the valve controls.

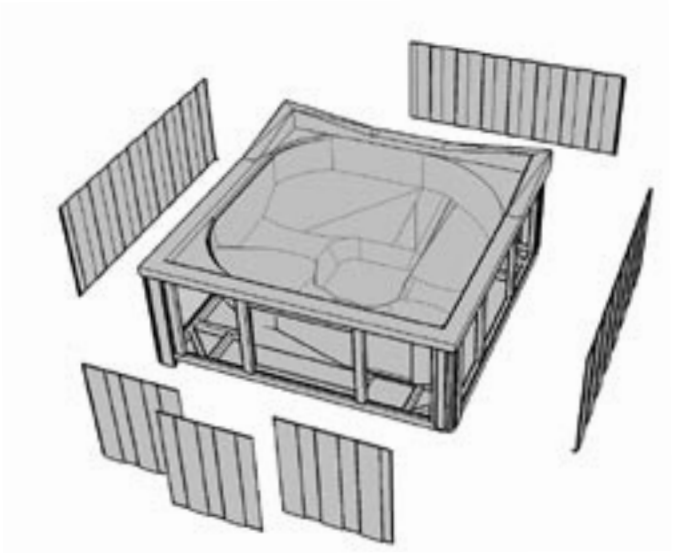


SPA TERMINOLOGY

EQUIPMENT ACCESS PANEL:
Located behind the side panel below the Topside Control Panel, this area houses the major components responsible for the spas operation. This components include the pumps, heater, control panel box, ozonator, and LED light system (if applicable). Pump and equipment placement may vary by model.



ACCESS PANELS
These are located on all, four sides of the spa. All of the panels are removable should service be required.



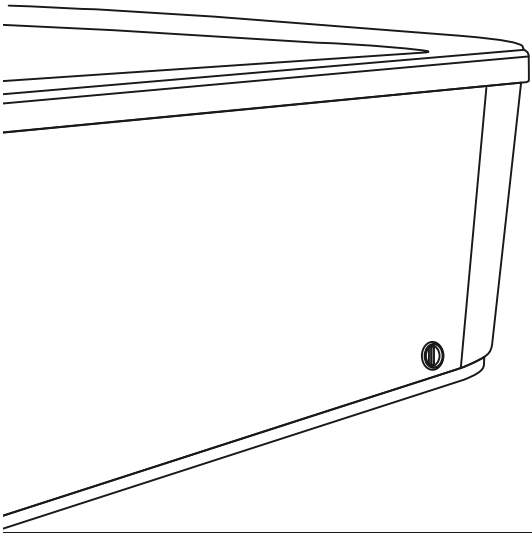
SPA TERMINOLOGY

DRAINING YOUR SPA

Because your spa holds a relatively small amount of water, contaminant's such as body oil, perspiration, dirt, hair, etc., may become quite concentrated. For this reason, the water should be drained and replaced every three months depending on use.

- Turn off power at the breaker.
- Hook up a garden hose to the hose bib located on the exterior drain of the cabinet to access the hose bib, please pull the cap out and turn counter clock wise to remove the cap, attach hose to the drain.
- When water begins to drain out of the hose, be sure to drain the water to a convenient place.

After draining is completed, turn the hose bib off by pushing in and turn clockwise one half turn. Remove the hose. Wipe down the inside of your spa making sure your surface is dry and free from standing water. We recommend that after draining or cleaning your spa that you put the cover back on. Avoid exposing the acrylic surface to direct sunlight for an extended period of time. Extended exposure can cause surface fading or cracking, which could void the acrylic warranty.



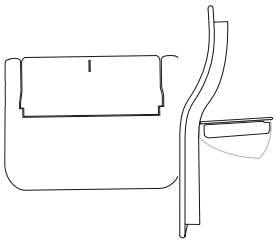
⚠ NOTE!

Note: Be sure that hose is on a downward grade to properly drain spa.

SPA TERMINOLOGY

WEIR GATE

The weir gate is the horizontal door located in font of the filters that trap debris in the filter area.



SPA LIGHT

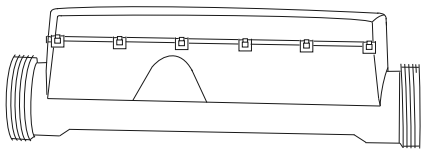
Your spa light is designed for safety and is located in the interior wall of your spa. The on/off switch is located on the topside control panel.

OR

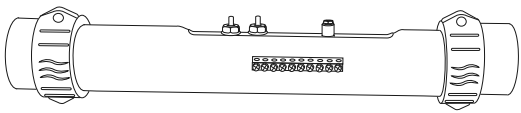
SPA HEATER

This element is an electric heater housed in a stainless steel tube. It is thermostatically controlled and equipped with a high-limit temperature safety shut-off sensor. The high-limit sensor cannot be reset until the temperature within the heater assembly drops several degrees below the shut-off temperature of 100˚ (varies by model). Should the high-limit switch trip repeatedly, contact your dealer or qualified service representative to diagnose the problem.

XM - PACK



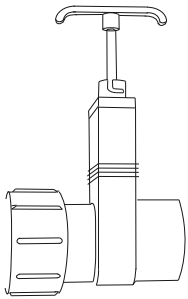
XE - PACK



SPA TERMINOLOGY

GATE VALVES

Are installed for shut off/on water supply from heater or pump for service. For normal spa operation valves should be in the open position. (handle extended is open).



MAIN PUMP

This produces water flow through heater and main jets. Also used for filtration. Can be controlled as desired by pressing the pump or pump 1 button on your topside control panel. (refer to Quick Reference Card) for filtration frequency and duration.

SECONDARY PUMP (on select models)

This produces water flow through secondary group of jets. This is pump could be a 1 or 2 speeds. Can be controlled by pressing the pump 2 button on your topside control panel.

THIRD PUMP (on select models)

This produces water flow through third group of jets. This is pump will be a high speed only. Can be controlled by pressing the pump 3 button on your topside control panel.

CIRCULATION (on select models)

If equipped this pump is controlled during filtration and heating only, by the topside control configuration. (refer to Quick Reference Card) for filtration frequency and duration.

OZONATOR (on select models)

If equipped will run for 45 minutes during filtration cycle. Helps reduce chemicals/santizer use. (automatically cuts-off if any user buttons are pressed on topside control, will reactivate during the filtration cycle).

SPA WATER MAINTENANCE

Cleaning Your Spa Water

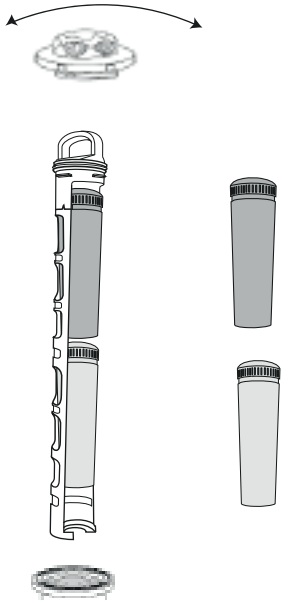
You need to keep your spa clean and ready to use. When you enter your spa, you bring in as much contamination as 50 people would in a normal size swimming pool! Because your spa is such a small, enclosed environment, it needs to be a sanitary place. We accomplish this with a simple three step process:

1) Balance
2) Filtration
3) Sanitation

The water that comes from your tap at home is fine for showers or bathing, because it is drained immediately after use. In a spa, your water is used for up to three months. Hot water is a breeding ground for bacteria, so sanitizing becomes necessary, as well as maintaining a specific mineral balance. Having that mineral balance in place ensures that the water, which is naturally corrosive to metal, will not cause damage to the spa equipment. We recommend weekly water testing.

The SPA FROG in-line System is built right into the spa and uses a mineral and bromine cartridges for easy top loading of replacement cartridges simply open the cap, pull up the holder and snap them in.
(ON SELECT MODELS)

To order your Spa Frog products go to website at
www.kingtechnology.com
or call
1-800-222-0169 Toll Free



⚠ WARNING!

WARNING: Maintain water chemistry in accordance with manufacturer's instructions.

SPA WATER MAINTENANCE

⚠ WARNING!

WARNING: Please be careful with chemicals - damage to the surface of the spa can occur due to the improper use of chemicals such as trichlor or chlorine, chemical tablets, acids or spa cleaners. Do not let undissolved chemicals lie on the surface of the spa. Damage from chemical misuse is not covered under warranty. Improper water chemistry balance can damage the spa surfaces and/or equipment, and is not covered under your warranty.

Filling Spa With Water

When filling the spa, use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS in a floating dispenser, two to three tablets will treat up to 500 gallons of water. For a chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

Once the spa has been filled to the correct level and pumps are primed and running add:

1) STAIN & SCALE REMOVER- This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.
2) CALCIUM BOOSTER (If Needed) - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.
3) pH STABILIZER - It will properly adjust and hold the pH for up to 3 months.

Water Testing

Your River Ridge Spa Dealer is equipped to perform a thorough analysis of your spa water. Take a one liter sample to the store and they will advise you on the products necessary to properly balance and care for your spa. Unbalanced spa water can quickly damage your equipment. Your spa dealer will advise you on how to protect your investment.

Balance

Spa water must have the correct chemical balance. Unbalanced water can irritate eyes, corrode the equipment, leave mineral deposits, and decrease the effectiveness of the sanitizer.

Balanced water means establishing proper balance among Total Alkalinity, pH, Calcium Hardness and Total dissolved solids.

SPA WATER MAINTENANCE

(An Overview)

Monthly - For Equipment Protection

CALCIUM BOOSTER (If Needed) - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.

Filter Cleaning
Keep your filter free of grease, grime, and oil. Clean the filter with SPA CARTRIDGE FILTER CLEAN. One 16 oz. bottle treats a 55 square foot filter. See Filter Maintenance section for location and diagram.

As Needed

Surface Cleaning
Between refills and as needed, clean the surface using SPA MULTI-PURPOSE CLEANER. For tough scale & stains, use STAIN & SCALE REMOVER.

Surface Protection
To protect and seal the spa surface, use SPA FAST GLOSS every time you drain and clean the spa.

Water Balance
Adjust the pH quickly and easily with pH STABILIZER. It will properly adjust and hold the pH for up to 3 months. Note: Not recommended for calcium hardness levels above 200 ppm. Use SPA UP to raise pH and SPA DOWN to lower pH.

Sanitizing
Use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS in a floating basket, two to three tablets will treat up to 500 gallons of water. For a chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

SPA WATER MAINTENANCE

Mineral Protection
STAIN & SCALE REMOVER - This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.

Foam Control
To control foaming, use SPA FOAM DOWN. For added convenience, use just 3 drops of SPA FOAM DOWN CONCENTRATE.

Skin Conditioning
To prevent dry skin, pour SKIN SOFTENER directly into the spa. It soothes and moisturizes.

Algae Control
For spas with green or yellow algae, use SPA ALGAECIDE to kill and prevent further algae growth.

⚠ WARNING!

Do not leave your water treatment products outside. If subjected to extreme heat or cold, their effectiveness can be impaired.
KEEP ALL CHEMICALS OUT OF THE REACH OF CHILDREN!

WINTERIZING YOUR SPA

⚠ WARNING!

In areas of the country where the temperatures drop below 32° F, it is important to follow these directions:

When winterizing the spa, we recommend putting RV Antifreeze in the spa and running it before draining the spa.

1) If the spa is not going to be used, drain completely. Be sure all water is removed. Break or loosen unions at each end of pump to en sure water from pump area is removed. Remove pump freeze plugs if so equipped. Using a shop vacuum, vacuum all jets thoroughly to remove any water left over in the plumbing lines.
2) Do not turn unit off with water in the spa. Frozen water may rupture plumbing. Freeze damage repairs are not covered under warranty.
3) Remove and clean filter cartridge. Store cartridge in a secure place to prevent freezing. If the spa is going to be used, maintain normal operating procedures and ensure cover is in place when possible.

⚠ NOTE!

Note: Freeze ups or damage caused by freezing are not covered under warranty!

SPRINGTIME START-UP

If your spa has been winterized. The Manufacturer highly recommends that you contact an authorized dealer to restart your spa. This following is an outline of the procedures involved.

- Make sure all o-rings for pumps are in place and undamaged.
- Make sure all the fittings that loosened are re-tighten.
- Replace all jet fittings, pump drain plugs, hose bib drains, and bleeder valves.
- Fill the spa, with water in a normal way,
- Run the jets on high for about 15 minutes.
- Drain the water.
- Put the filters) back in.
- Refill the system and treat chemically as one would after a normal water change.

For more information about Winterizing your system, or restarting a winterized system, please contact your local Authorized dealer.

GENERAL SPA MAINTENANCE

Proper Maintenance For Your Spa Cover

1) Use a soft broom to remove accumulation after every snowfall or ice storm.

2) Splash cool tap water on the hardware to free them if they become frozen shut. Household lubricating oil will keep the lock free, but apply carefully because it can damage the cabinet finish.

3) We recommend a good treatment with Vinyl Conditioner before the first snow or ice. If possible, treat during the winter too.

4) Monitor your water chemistry. Even it the spa is not used regularly, improper water chemistry can cause a mildew build-up on the cover. Clean, PH controlled water will prolong the life of the cover.

5) If mildew is found, remove foam cores from the vinyl encasement. Mix water, a teaspoon of mild dish washing soap and a cup of bleach. With a soft bristle brush, scrub the inside and outside of the vinyl en casement thoroughly. Then take a washcloth and wipe down each foam core, rinse thoroughly. Place the encasement in the sun and foam cores in the shade to dry. Once everything is thoroughly dry, spray the cores and encasement with a mildew inhibitor. Allow to dry completely, then reassemble. The key here, of course, is to maintain proper water chemistry to avoid mildew.

6) We suggest rotating the cover every six months to maintain even wear. Unzip the cover, remove the foam cores, turn over and reassemble.

Ask Your Dealer About Using A Cover Caddy

PROTECT YOUR COVER!

GENERAL SPA MAINTENANCE

Proper Maintenance For Your Spa Pillows

- Your spa pillows need to be rinsed periodically to remove any chemical residue. This should help to eliminate pillows becoming stiff and discolored.

- If spa is not to be used for a period of time, pillows should be removed. Pillow life will be extended.

- Always leave the corner open for 15 minutes in order to prevent of gas from damaging your spa pillows, cover and other critical parts. Signs of off gas damage include but are not limited to pillows peeling and bubbling, cover failing prematurely, plastics failing, etc.

Proper Maintenance For Your Spa Fountain Jets

- In order to keep you fountain jets operating properly, following these instructions in sequence:
- Turn off fountain jets
- Remove outer ring by turning face counter clockwise
- Remove internal jet insert with a pair of needle nose pliers.
- Clean plastic filter at the back of the jet insert so all holes are free of debris.
- Reinstall jet insert and outer ring.

Please note: We not recommend the fountain jets to be left on when spa cover is closed, this may damage your spa cover.

Proper Maintenance For Your Spa Surface

Quarite Plus® Disclaimer: This spa may insulated with high-density urethane foam for structural support and energy efficiency. When empty of water and left in direct sunlight without the spa cover in place, the spa is vulnerable to ultra violet or solar damage. Temperatures generated by sunlight that become concentrated in the shell surface causing the shell material to delaminate from the urethane foam backing. This occurrence is considered abuse and may result in surface blisters, bubbles or large layer delamination. This occurrence is not covered under warranty. The spa cover must be kept on the spa while empty of water.

GENERAL XE TOPSIDE CONTROLS TERMS

Pump 1

The Pump 1 Button - Press **PUMP 1** on at low speed. Press a second time to turn pump on high speed. Press a third time to turn pump off. When at high speed, a built-in timer turns pump off after 20 minutes and when at low speed after 2 hours, unless manually deactivated first.

Pump 2

The Pump 2 Button - Press **PUMP 2** on. Press a second time to turn Pump 2 off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated.

Light

The Light Button - Press **Light** to turn light on. Pressing a second time turns off. A built-in timer automatically turns light off after 2 hours, unless manually deactivated first.

Econo

The Econo Button - Press and hole **Econo** key for 5 seconds to switch from Normal mode to Economy mode. In Economy mode, system maintains temperature at the desired Set Point during filter cycles only. Set Point is 20˚F (11˚C) below the Normal mode Set Pointe for the rest of the time. In Economy mode, the display will toggle between the current water temperature and the “Econo” message.

Filter

The Filter Button - Press and hold **Filter** key until the display show “xx”, representing the currently set filter cycle duration in hours.

Up

The UP Button and The Down Button - Use **Up or Down** arrow keys to regulate water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.

Down

The “Set Point” indicator displays the desired temperature, NOT the current water temperature!

Water temperature can be adjusted by 1˚ increments from 59 to 104˚ F (15˚ to 40˚ C).

Press and hold Light key for 5 seconds to display water temperature in either Fahrenheit (˚F) or Celsius (˚C).

GENERAL XM TOPSIDE CONTROLS TERMS

Starting Light
• Select Light key to turn light on.
• Select Light key again lights off.
(120 minute built-in timer)

Starting Pump 1
• Select Pump 1 to turn Pump 1 on.
• Select Pump 1 repeatedly to control pump 1 speeds.
(20 minute built-in timer)

Starting Pump 2
• Select Pump 2 to turn Pump 2 on.
• Select Pump 2 once more to turn Pump 2 off.
(20 minute built-in timer)

Starting Pump 3
• Select Pump 3 to turn Pump 3 on.
• Select Pump 3 once more to turn Pump 3 off.
(20 minute built-in timer)

Next Menu Page
• Press Next key to display the nest page in the spa menu.

Starting Blower
• Select Blower to turn Blower on.
• Select Blower once more to turn blower off.
(20 minute built-in timer)

Turning Economy on
Lowers the temperature set point of the spa by 20˚F (11˚C)
• Select Economy to activate the economy mode.
• Select Economy again to override economy programming

Standy Mode
Stops all pumps at the same time by a simple click of a button!
• Select Standby to activate this mode.
• Select Standby to again to resume normal operations.

GENERAL XE OVERLAY DIAGNOSTIC MESSAGE

Hr

An Internal hardware error has been detected in in.xe.

- Restart the spa pack and start and stop all pumps and blower.
- If error reappears, replace in.xe spa pack.

HL

Water temperature at the heater has reached 119˚F.

DO NOT ENTER SPA WATER!!!

- Restart the spa pack.
- If error persists, measure the temperature with a Digital thermometer and compare. *(its reading with temp. on the display. Make sure the temp. reading is lower than 119˚F).*
- If problem persists, replace pack.

Hoh

Temperature inside the spa skirt is too high, causing the internal temperature in the in.xe to increase above normal limits.

- Remove spa skirt and let system cool down, until the error clears.

Flo

The system did not detect any water flow while the main pump was running.

- Make sure valves are open and that water level is high enough.
- Check and remove anything obstructing the filter.
- Make sure there are no air locks (or that no object obstructs the passage of the water in the heater channel). Pumps may make strange noises. Follow air lock procedure to clear them.

Prr

The Prr error message indicates a problem with regulation probe. The system is constantly verifying if temperature probe reading is within normal limits.

- Verify if regulation probe (located above the heater) is properly connected.
- Replace in.xe heater is problem persists.

OH

Water temperature in the spa has reached 108˚F.

DO NOT ENTER SPA WATER!!!

- Measure the temperature with a Digital Thermometer and compare its reading with temp, on the display. If temp reading is different, replace heater.
- Remove spa cover and let spa cool down.
- Add cold water and lower filter cycles.
- If problem persists replace pack.

GENERAL XM OVERLAY DIAGNOSTIC MESSAGE

SPHr **A hardware error was detected in the in.xm pack**
Reset the spa back by shutting the breaker off then on again, manually change the status of all the pumps and accessories. If the problem still persists, replace in.xm pack.

SPoT **The InXm's internal temperature is too high**
Remove spa skirt and let system cool down. A system reset may be required to clear error.

SPIn **The Input voltage is too low**
Was this error present since 1st power-up of the in.xm? If so, check the input terminal connections to make sure they are correctly wired and tight. Otherwise have a certified electrical verify the power line quality.

SPF1 **Fuse #1 is blown**
Replace the blown fuse with an identically rated fuse.

SPF2 **Fuse #2 is blown**
Replace the blown fuse with an identically rated fuse.

SPF3 **Fuse #3 is blown**
Replace the blown fuse with an identically rated fuse.

rHHr **A hardware error was detected in the in.therm.**
Restart the spa pack; make sure the heater restarts by changing the set point. If problem still persists, replace in.therm

rHnH **The error occurs if the in.therm is trying to heat water, but does not detect any temperature rise.**
Make sure the in.therm power cord is correctly inserted and sealed in the in.xm. Restart the system. The system will preform a flow check. If the error code appears before any temperature as displayed, replace in the in.therm.

rHnF **Occurs when a "no flo" condition is detected by the in.therm.**
Make sure that the pump associated to the heater (pump #1 or Circulation Pump is running. Check and clean filters. Make sure water valves are open. Make sure there is no air lock condition (or any object obstructs passage of water within the in.therm).

rHnC **This code occurs when a communications problem exists between the in.xm and in.therm.**
Make sure remoter heater cable is correctly connected,; then reset system. If condition persists, visually verify male connector pins to make sure they are not bent. If the above does not solve problem, either in.xm or in.therm may need to be replaced.

GENERAL XM OVERLAY DIAGNOSTIC MESSAGE

rHHL

The high limit circuit is tripped. Usually, the kinetic heating protection or the current monitoring circuity will shut down the heater before the error can occur.
Add cold water to spa and let heater cool down. Reset spa pack using current breaker.

rHPr

Temperature probe defective.
This error clears itself when the error condition is no longer present. Reset the breaker if the error is still there replace the In.therm

rHId

The ID number of the in.therm vs the InXm is wrong (CE/UL)
There is a CE In.Therm connected to a UL In.Xm or vice versa. Change he In.Therm or In.Xm to the appropriate version.

P1Er
P2Er
P3Er
CPEr
bLEr

For all the above, the system has not detected a current change when turning on or off the device.
Make sure the device is correctly connected (plug is sealed). If possible, manually change the output status (on/off) of the device and cycle through all possible states (i.e low and high speeds). Reset spa pack. If error does not clear, problem is probably with the device, it will need to be serviced.

Sc

This is not an error message
A solid Sc means the system is scanning all the output to learn the current draw of every accessory connected.

ScEr

A scan error was detected
Every time a low-level option is changed, the system must “learn” the currents associated to each output/load. During this learning process, the device(s) connected to OUT8 (direct output, no relay) must be disconnected (or off). If, not the system will report this code. Once the load is correctly disconnected, the breaker has to be reset than the user needs to restart the learning process by selecting the low level configuration and set the breaker Once the learning if finished, the accessories connected to OUT8 may be reconnected.

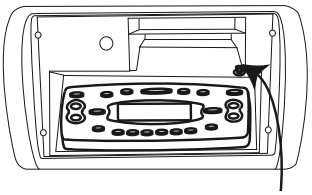
br

This is not an error message
The breaker size selected is lower than the total current of each output. The In.Xm will manage the current accordingly.

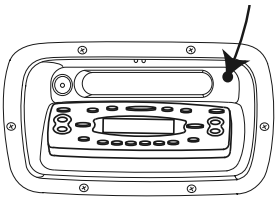
STEREO REMOTE CONTROL SYSTEM

To Program wireless remote:

- Turn Radio on (radio must be powered)
- Select the FM tuner source (this will activate the program switch).
- Press and hold the button inside the stereo enclosure.
- While holding the button inside the enclosure, press and release any button on the remote.



"REMOTE"
Programming Switch

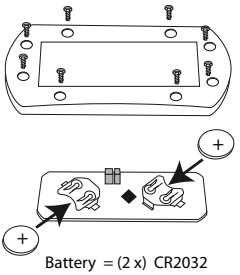


"REMOTE"
Programming Switch

(The red indicator light on the remote will flash to indicate a button has been pressed.)

The button inside can now be released and the remote is programmed.

- Buttons light up for 5 sec. when sensor detects low light and button is pressed.
- If the indictaor light fails to come on when a button is pressed replace batteries.
- The remote range is more that 75'



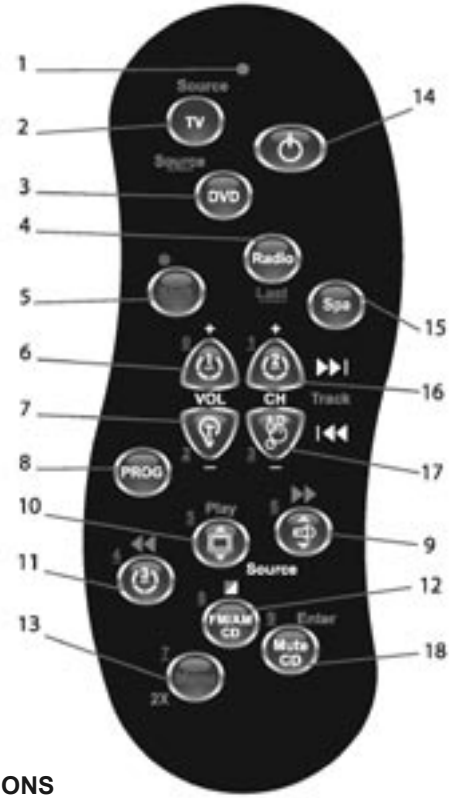
upon reassembly: be sure that the rubber keypad gets "seated" back into the groove to insure a watertight seal.

CINEMA REMOTE CONTROL SYSTEM

TV, DVD, CD & Spa Remote

Choose the source you would like to operate by pressing one of the four buttons marked TV, DVD, CD or SPA

Codes
DVD - 0037
CD - 0101



PROGRAMMING INSTRUCTIONS

1. Turn on device (eg. DVD)

2. Press the source button you wish to program. (eg. DVD)

3. Press & Hold the Program button until the red LED light blinks twice.

4. Press & Hold shift while keying the code that corresponds with the device. (eg. 0037 for DVD)

5. If preformed correctly the LED light will blink twice. If not repeat steps 2- 4 until the LED light blinks twice to confirm the code was accepted.

6. Aim the remote at the device and press power once. It should turn off. If it does the remote is programmed.

TROUBLE SHOOTING GUIDE

No heat or heat too low

Probable Cause #1 ..... Dirty Filter.
Action Remove filter cartridge and clean.
Probable Cause #2 ..... Breaker at house off.
Action ..... Reset breaker at house. Breaker can appear to be on and one pole can be off. Turn breaker OFF then ON twice.
Probable Cause #3 ..... Pump not primed.
Action ..... Refer to the section of this manual on pump priming.
Probable Cause #4 ..... Improper line voltage.
Action ..... Have a Licensed Electrician check the line voltage.

Spa Lights won't come on

Probable Cause #1..... Light bulb burned out.
Action ..... Replace bulb (non-warranty).
Probable Cause #2..... Dirty connection.
Action ..... Check to see if there is anything covering the connection on the housing that holds the light bulb.

Pump will not prime

Probable Cause #1..... No water in pump.
Action ..... Make sure water level in spa is correct.
Probable Cause #2..... Closed gate valves or blocked lines.
Action ..... Open all gate valves. Check suction for blockage.
Probable Cause #3..... Pump surges, jets lose and gain power, loose union or drain plug.
Action ..... Check union on front or nose of pump to ensure tightness. Check drain plugs to ensure tightness.

Jet(s) won't come on

Probable Cause #1..... Pump not primed.
Action ..... Refer to the section of this manual on pump priming.
Probable Cause #2..... Gates valves closed.
Action ..... Check to see if gate valves are in the correct position. Check to see that pump is plugged in.
Probable Cause #3..... Water Diverter Valve not adjusted correctly.
Action ..... Turn Water Diverter Valve until desired water flow is obtained.
Probably Cause #4..... Individual jet is closed.
Action ..... Turn the outer jet housing clockwise to turn jet on.

Low water flow

Probable Cause #1..... Dirty Filter.
Action ..... Remove filter cartridge and clean.
Probable Cause #2..... Closed gate valves or blocked lines.
Action ..... Open all gate valves.
Probable Cause #3..... Low voltage or incorrect voltage.
Action ..... Have a Licensed Electrician check the line voltage.

TROUBLE SHOOTING GUIDE (CONT.)

Spa is leaking

Probable Cause #1.....Loose connection.
Action .....Hand tighten all disconnects and fittings.
Check joints and unions.

Motor does not run

Probable Cause #1.....No power to motor.
Action .....Check power switches and circuit breakers.
Check motor plug where plugged into control box.
Probable Cause #2.....Pump jammed from foreign matter in impeller.
Action .....Call dealer for recommended action.
Probable Cause #3.....Motor overheats on hot days while filtering.
Action .....Reprogram your controls to cycle during the coolest parts of the day and on shorter cycles. (see programming instructions).

Motor runs hot

Probable Cause #1.....Pump ran dry.
Action .....Call dealer for recommended action.
Probable Cause #2.....Restricted suction lines.
Action .....Make sure all valves are open/clear suction of debris.
Probable Cause #3.....Improper ventilation
Action .....Insure that vents on side of spa are free and clear of any debris or landscaping. Spa should also be located an adequate distance from any walls or fencing for good ventilation.

Stereo Issues .....Please refer to manual (provided)

TV issues.....Please refer to manual (provided)

⚠ NOTE!

Note: These motors will feel hot to the touch. This is normal. The Overheat Sensor will turn the motor off if there is an overload or high temperature problem.

NOTES

Limited Warranty Summary
Please refer to the Warranty Card included with your product for complete warranty information. In order to receive prompt warranty service, you must register your spa - ask your dealer about registering. Spa provides a limited warranty to our customers. It applies to the spa structure, surface, plumbing, pumps, heater, blower, and controls. The limited warranty does not cover damage resulting from improper maintenance, improper installation, misuse, abuse, accident, fire, normal wear and tear, or improper water maintenance. Unauthorized modifications of the spa may void the warranty. Replacement costs associated with transportation, removal, and reinstallation are the sole responsibility of the spa owner.
This manual refers to only year 2009 model spas. Spa Manufacturer reserves the right to make changes in design or material of its products at any time without incurring liability. This limited warranty applies to the first retail purchaser and terminates upon any transfer of ownership.

Disclaimer:
The information in this manual is accurate to the best of Spas, the spa manufacturer knowledge. However, Spas, Inc. assumes no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from use of the information contained herein.

Safety Sign
The safety sign enclosed with your Owner's Manual packet should be permanently installed where visible to all users of the spa. It is very important that you, as a spa owner, review the important safety instructions and warnings before you operate your spa. It is equally important that you instruct all users, even occasional ones, as to the warnings associated with spa use. You may obtain additional signs by contacting:

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APSP
The Association of Pool & Spa Professionals

Spa Operator's Guide